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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SAMS, MATTHEW C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/808,923	Applicant(s) OSAFUNE ET AL.	
	Examiner Matthew C. Sams	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Amendment

2. This office action has been changed in response to the amendment filed on 5/24/2006.
3. Claims 1-10 have been canceled and claims 11-20 have been added.
4. The rejection under 35 U.S.C. 112 has been withdrawn.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Waters et al. (US-2003/0008659 hereafter, Waters).

Regarding claim 11, Waters teaches a method of positioning information for a plurality of nodes connected to a network (Page 1 [0004-0011]), the method comprising:

- receiving first routing information from a first node connected to said network, said first routing information containing positioning data for said first node, wherein said positioning data includes at least one of a predetermined position of said first node or data from a self-position detection unit of said first node (Page 5 [0078-0080])
- receiving second routing information from a second node connected to said network, wherein said second routing information is absent positioning data for said second node and said second node does not include a self-position detection unit (Page 2 [0024])
- calculating positioning data for said second node according to a predetermined equation using said first and second routing information (Page 2 [0024], Page 5 [0080] and Page 6 [0106])

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waters in view of Okuda (US 2003/0078054).

Regarding claim 12, Waters teaches a position-information managing method according to claim 11 that includes keeping a log of locations for surrounding nodes on

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a grid (Page 5 [0082]), determining position information about a node having own-position detection unit, the position information about the node with the predetermined position and the calculated information (Page 2 [0024] and Page 5 [0080]), but differs from the claimed invention by not explicitly reciting displaying first and second symbols of the positions of the nodes.

In an analogous art, Okuda teaches a mobile device that sends its own location to another mobile device, which displays the location of both mobile devices on a map. (Page 2-3 [0038]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the invention of Waters after modifying it to incorporate the displaying of positions of Okuda. One of ordinary skill in the art would have been motivated to do this since having a visual indication of relative locations makes finding each other's location easier and can show obstacles in the terrain between the relative locations.

Regarding claim 13, Waters in view of Okuda teaches first and second routing information include distance information, wherein said distance information is used in calculating positioning data for said second node. (Waters Page 2 [0025], Page 5 [0080] and Okuda Pages 2-3 [0038-0044])

Regarding claim 14, Waters in view of Okuda teaches the distance information is a number of hops. (Waters Page 2 [0024])

Regarding claim 15, Waters in view of Okuda teaches a distance over which said second node can communicate wirelessly with other nodes is used as a coefficient in said predetermined equation. (Waters Page 2 [0024])

Regarding claim 16, Waters in view of Okuda teaches connecting said first and second symbols with a line if said first and second nodes can communicate with each other. (Waters Fig. 1B, Fig. 6 and Fig. 7)

9. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waters in view of Suzuki et al. (US 2002/0094823 hereinafter, Suzuki).

Regarding claim 17, Waters teaches a position determining unit configured to receive first routing information from a first node connected to said network, said first routing information containing positioning data for said first node, wherein said positioning data includes at least one of a predetermined position of said first node or data from a self-position detection unit of said first node (Page 5 [0078-0080]), said position determining unit further configured to receive second routing information from a second node connected to said network, wherein said second routing information does not contain positioning data for said second node and said second node does not include a self-position detection unit (Page 2 [0024]) and said position determining unit further configured to calculate positioning data for said second node according to a predetermined equation using said first and second routing information, thereby determining said position of said second node. (Page 2 [0024], Page 5 [0080] and Page 6 [0106]) Waters differs from the claimed invention by not explicitly reciting a display unit configured to display a first symbol representative a position of said first node and a second symbol representative a position of said second node.

In an analogous art, Suzuki teaches a radio communication system that detects locations of mobile nodes and has a central management device that displays locations

on a map. (Page 5 [0055]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the network system of Waters after modifying it to incorporate the management display device of Suzuki. One of ordinary skill in the art would have been motivated to do this since having a visual indication of relative locations makes finding each other's location easier, can show obstacles in the terrain between the relative locations and can show defective connections between the nodes. (Page 5 [0055])

Regarding claim 18, Waters in view of Suzuki teaches a display unit displays a line between the first symbol and the second symbol if the first and second nodes can communicate with each other. (Suzuki Page 5 [0055])

Regarding claim 19, Waters in view of Suzuki teaches the positioning determining unit is further configured to receive routing information from each node in said plurality of nodes connected to said network. (Suzuki Page 5 [0055])

Regarding claim 20, Waters in view of Suzuki teaches the routing information received from each node in said plurality of nodes includes positioning data for nodes having self-position detection units. (Waters Page 2 [0024], Page 3 [0041], Page 5 [0080] and Suzuki Page 5 [0055])

Response to Arguments

10. Applicant's arguments filed 5/24/2006 have been fully considered but they are not persuasive.

11. In response to the applicant's argument regarding claim 11 that "Waters does not teach performing a calculation to determine the location of a device, but merely provides a user with information about the device's last known location" (Pages 5-6), the examiner disagrees.

It is the examiner's opinion that Waters performs a calculation to determine the location of a device when an activity log entry is created (Page 1 [0011]), that a piconet was formed and knowing the type of communication that was used (Page 1 [0010]), and determining the location of the second node. (Page 1 [0004-0015])

12. In response to the applicant's argument regarding claim 11 that "Waters does not disclose "receiving first routing information from a first node connected to the network, said first routing information containing positioning data for said first node ... receiving second routing information from a second node connected to the network, wherein said second routing information does not contain positioning data for said second node ... and calculating positioning data for the second node according to a predetermined equation using said first routing information received from said first node." (Page 6), the examiner disagrees.

It is the examiner's opinion that "receiving first routing information from a first node connected to the network, said first routing information containing positioning data for said first node" is equivalent to "self-location abilities" in the mobile devices of Waters (Page 2 [0021-0024]), "receiving second routing information from a second node connected to the network, wherein said second routing information does not contain

positioning data for said second node” is equivalent to a first device with “no inherent self-location abilities” connecting to a “second device which does know its own location” (Page 2 [0024]) and “calculating positioning data for the second node according to a predetermined equation using said first routing information received from said first node” is equivalent to a piconet record in the activity log being created (Page 2 [0026]), with the location of the second node being within a “few meters” of a known location. (Page 1 [0010] and Page 2 [0032]) Therefore, it is the examiner’s opinion that Waters meets the limitations of claim 11 and for similar reasons, claim 17.

The rejections for dependent claims 12-16 and 18-20 are maintained in view of the further explanation listed above for independent claims 11 and 17.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS
8/4/2006


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